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**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,318

FILMED

98/440

ASSESSMENT WORKS DONE in 1984-1985

SUMMIT CLAIMS Nos 5,6,7,8.

LOCATION: New Westminster Mining District.
Map: M 92G/1E. S-E,Corner.

LATITUDE: 49° 03' N.(approx)

LONGITUDE: 122° 07' W. "

OWNER OF CLAIMS: R.Trifaux.

AUTHOR OF REPORT:R.Trifaux.

**G E O L O G I C A L B R A N C H
A S S E S S M E N T R E P O R T**

14,318

Assessment Works Presentation

Year 1984-1985

on

SUMMIT CLAIMS no5,6,7,8.

NEW Westminster Mining District, British Columbia.

by R.Trifaux,-308,751, Clarke Road, Coquitlam, B.C.

FMC:TRIFR.

Claims Summit no 5-Tag 523415M

Summit no 6-Tag 523416M

Summit no 7-Tag 523417M

Summit no 8-Tag 523418M

SUMMIT CLAIMS ASSESSMENT WORKS REPORT 1984-1985

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Summit Claims. Assessment works 1984-85

INTRODUCTION: The Summit claims are situated on the Vedder Mountain (Map M92G/1E); the Mountain is localized in the Chilliwack Provincial Forest. TP22, ECM. Part of it is situated in the Abbotsford District Municipality, and the Chilliwack Municipality. From Cultus Lake, in the Cultus Provincial Park, one has a very good view of the areas.

The Department of Land and Forests is doing a huge reforestation project, on the South part of the Mountain, the Cedar trees have been planted and are growing, it is quite a success.

As I stated in my assessment works of 1981-1982, I found several greisen bodies and veins in place and also quite an extensive display of granites and crystallized black schists.

I found approximately the same display of rocks in Africa where beryls were found with muscovite, pegmatites, granites.

A new geochemical survey done on claims 5, 6, 6, 8, and surroundings, samples taken in boulders, in hardpan, in veins situated on the claims gave some indication for beryllium environment. The presence of W and Sn in the analyses are a good indication for the possible presence of beryllium.

To reach the Summit claims, one takes the highway no 1, from Vancouver, to Abbotsford. From Abbotsford one continues to the intersection of the no 1 highway with the Yarrow village road, passes through Yarrow and turn right on the Cultus Lake road. After 2 miles of driving there is a road which is going to the top of the Vedder Mountain. The access is arid and the road is an old logging road.

Reaching the top, one drives 15 km approximately in a westerly direction, and reaches the claims 5, 6, 7, 8. Some indications of mileage exist on the road, but the signs are erratic and confusing.

The claims are situated South-West of the Vedder summit point shown on the topographical map, 45oSW. bearing from the said point approximately.

The Department of Lands and forest is clearing what is called the Forestry road which will give better access to the mountain and the claims.

The small logging roads are still the same, no improvements have been done on them since 1982. The culvert of creek no 2 has been replaced and can receive a biggest flow of water which is good for the road.

Less peoples are coming to cut fire wood on the sites of the Mountain.

The South West road which goes in the Vedder River flat, is in very poor shape and the access to the Vedder Mountain from that side is quite impossible with a car. Four wheels drive are required.

The presence of granites, (pegmatites?) on the Mountain in several areas and the floats of tourmaline (Boron) convey to the possibility of hidden bodies of beryllium. The geological formations and the presence of several minerals are concordant with the development of the mineral fluorite which insure extraction and removal of beryllium from the magma.

We found fluorescent rocks in several areas of the prospect and the persistence of this fluorescent showings is an indication of the definite possibility of beryllium occurrences.

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Summit claims. Assessment works 1984-85.

TOPOGRAPHY:

The north-west sides of the claims is situated on an incline which is quite abrupt, from 1800 ft to 150 fts on a short distance. 150ft is the lower part which is close to the flat situated in the Vedder River valley.

On the North side of the Mountain, cliffs exist close to the vertical. On the south side of the claims the slopes also are very abrupt and one reaches the 750ft level from the 1800ft also quite rapidly. Some exposures of formations are visible on each side of the claims and this help to map the geology of the mountain near the claims.

From 1800ft to 3020ft which mark the peak of the mountain, on the North-East of the claims, the slopes are more gentle and this is where the granitic bodies are appearing, with white micas.

The summit is accessible by trail on the north east side.

Because of this type of topography, creeks are very scarce and no water reservoir has been encountered. The small creeks are seasonal and disappear with the summer.

TECHNICAL DATA.

a-Geological: We analyzed more closely the areas for promising granitic bodies within the limits of the claims and the ones of the greisen and veins formations.

After determining the metallogenesis of the areas involved in the claims with geochemical analyses (see geochemical analyses enclosed in this report) we found the presence of Bi, Be, W, Sn. We found floats of tourmaline previously on the mountain, and all the above is showing some conclusive aspects about beryllium.

In general, the presence of at least one of the following minerals is an indication of the possible presence of beryllium:

Beryl.	Columbite.
Tantalite.	Cassiterite.

In several gravels whased by myself and analyzed by Min-En I found cassiterite. (analyses Sn: 0.3%). In some readings in analyses, lithium has also been found.

We looked for the boundaries of the granitic outcrops on the claims but we were not successful.

Areas of Development of small acidic intrusions were detected, they are marked by the process of greisenization with in places high fluorescence in rocks.

Quartz and hematite have been observed nearly everywhere on the claims and quartz mica has been seen in the rocks.

Molybdenum has been evaluated in the analyses, it is always present, but very low.

Boron is aleays present in the samples and 25ppm were observed. A granitic rock has been found with tourmaline black crystals in it on the mountain. In Africa, tourmaline is always in the permatites, mica books of muscovite are abundant in the formations with beryllium.

In some deposits, bismuth is also found with beryllium, and the values encountered on the claims are all anomalous.

Summit claims. Assessment works 1984-85.

a) Geological. (continued)

In the black crystalline schist fluorescense has been widely detected and it is not calcite, no response with HCl.

We found a lot of fluorescent rocks in one part of the mountain which came from calcite.

Competent rocks of granite and extensive magnetite occur on the sites, the magnetite contain SnO₂. Some low values of columbite and tantalite have been observed in the geochemical analyses.

The nature of the greisens is the one with a multitude of small veinlets with fluorescence in them, the veinlets are showing the way the rocks were fractured. All the formations are steeply dipping.

Quartz hematite and quartz topaz floats are easily located on the sites.

Overburden in some places is heavy, and forbid to see the continuation of the bodies.

To summarize:

Our research permitted us to find the following:

1-Quartz.

2-Quartz with mica(muscovite).

3-Fluoritic veinlets.

4-Scheelite or wolframite(Wppm in analyses).

5-magnetites with SnO₂ in them.

6-zirconium.

7-miscellaneous sulfides.

8-quartz with hematite.

We cannot execute a preliminary evaluation of beryllium at this stage the values in the geochemical analyses are too low, but they are consistent and are marking all the elements which are always encountered in such type of deposits.(beryllium).

There is a possiblity that the contact with the granitic bodies bearing the beryllium occurrences is much further east -North east in the Nami claims.

We didn't analyze the magnetites for beryllium, and sometimes they containt the metal. Such analysis will be done.

We took the claims sites to find the beryllium because of their closeness with the granites. Anyway we found a very favourable criterion by the discovery of the presence of the following:
fluorite, topaz in the rocks.

Wolframite, cassiterite, molybdenum, and bismuth

We also found a positive prospection feature of basic and ultra-basic rocks(gabbro, amphibolites) that are suitable of large size pegmatites. As yet we didn't see the nature of the enclosing rocks at the contact of the granites, nor the aureole enclosing the granites. More research will be done. Erosion has not been deep enough and the presence of overburden do not facilitate such works in this area.

Geological mapping Good exposures of the formations exist on the South-west road going in the Vedder river flat.(see map).

A

Summit claims. Assessment works 1984-85.

B-GEOCHEMISTRY. Commentaries on the geochemical surveys and miscellaneous items on beryllium.

I submitted 24¹⁹ samples to Min-En Laboratories Ltd, in Vancouver. 15 of them were analyzed by I.C.P.(27 elements) and 9 for total Major Geochem(26 elements).

The total number of analyses has been 639; they were done to try to know the nature of the formations on the claims and especially trace the acidic composition of the rocks for the presence of beryllium.

In the geochemistry of beryllium the principal conditions necessary for favouring Be concentration are:

- 1-High fluorine content in the magma.
- 2-A relatively low concentration of silicon in the skarn deposits.
- 3-The(helvite-danalite)beryllium occur in an environment with high concentrations of iron and manganese at the contact between beryllium bearing granites and limestones.
- 4-The very characteristic associates of the minerals of the group in the contact metasomatic zones are magnetite and fluorite.
- 5-Phenacite and chrysoberyl,in the skarns,are intimately associated with fluorine and hydrothermal solutions with limestones.

We have discovered and traced occurrences of rocks(greisen) which contain good shows of fluorite on claims 5,6,7,8.

We also observed concentrations of iron and manganese, but the manganese is not prevalent like the iron in the samples analyzed.

In one area we have encountered hig concentration in magnetite in the sands also in the harpan samples analyzed and reported in this report.

The fluorescences have been remarkable in the many veinlets samples taken in the acidic rocks(the fluorescence does not come from calcite because the rocks do not respond to HCl.). But even with the fluorine showings ,Be values are in general weak, although some of them are anomalous.

We have values o .001 or 9ppm. If one refers to a table of elements distribution, beryllium is quoted as:

- 2.8 ppm in the earth crust.
- .2 ppm in granodiorite.
- .05ppm in basalts.
- 5.0 ppm in granites.
- 3.0 ppm in shale.
- 1.0 ppm in limestone.

9ppm is anomalous but will not be considered as a very good indication in our study. The values encountered are showing continuity of the presence of Be metal on the mountain.

The values shown by I.C.P.(27 elements) are lower than the ones in the total analyses.

The main minerals observed by the geochemical analyses are quartz, muscovite, black tourmaline(1 sample),iron,manganese,fluorite,hematite, magnetite and calcite.

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Summit claims. Assessment works 1984-1985.

GEOCHEMISTRY-Commentaries.(continued).

The rare metals accompanying the formations are:columbite or tungsten, lithium, SnO₂, wolframite, moly, but no commercial values have been discovered.

Illmenite, iron, magnetite are highly present in the substratum of the Nami claims which are directly situated north of the Summit cl,5,6,7,8.

The presences of wolfram, bismuth, moly, cassiterite and niobium with a few anomalous values are encouraging in this search for Be.

From what has been observed at this stage, the formations are not pegmatitic. But the positive features which allow me to expect Be. minerals to be present in the greisens and the veins is the pertinent showings which accompany the Be minerals and concentrations of such beryllium minerals, in the non-pegmatitic deposits i.e.:fluorite, muscovite, wolframite SnO₂, columbium and tungsten.

We are not finding any predominant vesuvianite which sometimes has a negative effect on wide occurrences of Be minerals. We found vesuvianite in a mountain east of the Vedder mountain, but not in wide showings.

The presence of Beryllium may exists in the granite formation at a lower level in the mountain. With the values of Tin and W & Nb which are good, the environment remains the one responsive to Be minerals.

The fluorescences which are quite numerous and very often seen in the samples is elusive in our search; at first it was the main element we were looking for as indicative of the possible presence of Be, but we are questioning the lack of good samples which contain fluorine and noBe.??

We know that in some deposits, at a depth of 25 to 35 or so meters from the surface, the granites(pegmatites?) form a swell whose thickness(at a depth of 45 to 50 meters from the surface) is more than 60 meters, which often contains pockets of beryllium.

We witnessed the phenomenon in a pegmatitic deposit of tin, wolframite, and beryl minerals in Ruanda, we followed the deposit 32 m along the dip.

The hardpans in claim 6, are high in silver, show 33ppm in boron which is associated with this type of Be. deposits, high in bismuth, high in Be with approximately 60ppm. (.01%)

The harpans are black, hard, solid, sometimes difficult to break, with some carboniferous matters, smell oily.. In previous analyses SnO₂ had values up to .03% or 274ppm. which is anomalous.

SnO₂. The values of Sn are steady from .001 to .005.

.001 = approx 9ppm.

.005 = approx 45 grams, which is anomalous in places in total analysis.

Nb. .01 or less than 91 ppm. The average ppm in rocks is 20ppm, so the values encountered in some areas are anomalous.

Wolfram:

0.01 to .015 or 90ppm average, highly anomalous in total analyses.

.../...

GEOCHEMISTRY. (continued).

SIO₂. the rocks analyzed are generally high acidic elements which is important in the search for Be. Also wolframite, bismuth, niobium, tantalum respond to highly acidic rocks.

Bismuth: 15 average in rocks except granite which has 0.1. In shale .18 ppm.

The values encountered in our analyses from 1 to 6 ppm, 9, 12, 13, 14 ppm are thus highly anomalous, in ICP, analyses.

LITHIUM: is always present in ICP, analyses, but hardly anomalous.

The existence of multi-metalliferous formations is a good environment.

Note: all the samples have been washed with soap to eliminate any impurity before the checking of the rocks for fluorescence.
All have been marked for the Laboratory.

CONCLUSION:

The conclusion of the survey which is not showing any outstanding results is far of being negative. The results as far as I am concerned are very positive in some areas, and overburden forbid the checking of any continuity.

More works should be done in the future. Trenching with a backhoe should be done to remove the cubages of overburden.

Also the harpans should be more exposed in depth by mechanical trenching. More minerals are enclosed in the hardpan than Be minerals.

b-Geochemical: Total analyses.

Samples	BE	Nb	Ti	W	Zr	Cu	Mo	Ni	Pb	V	Zn	SiO ₂	Cao	Sn	:	
<u>Min-En</u>																
7-85	:.001	.01	.08	:.015	.010	:.005	.005	.005	.001	.005	.90	.44	:.17	:.001	:hematite cl8	
8-85	: "	:	.94	:.01	.01	:.001	:.001	:.02	:	:.015	.001	.64	.54	:.502	" : Greisen cl7	
9-85	: "	:	.15	:.015	.05	:	:	:	:.005	:	.005	.005	.86	.44	:.41	
10-85	: "	:	.81	:.010	.010	:	:	.005	:	:	.02	:.01	.62	.87	:.11,72	
11-85	:	:	:	:	:	:	:	:	:	:	:	:	:	:	: see below	
12-85	:	:	:	:	:	:	:	:	:	:	:	:	:	:	"	
13-85	: "	:	.02	:.010	"	:.005	"	:	"	:.005	:	.64	.28	:.19,34	:.005 Greenr. Cl5.	
14-85	: "	:	.57	:.01	"	:.001	"	:	"	:.01	:	.005	.69	.31	:.4,64	
15-85	: "	:	.33	:.01	.005	:	:	.01	:	"	:	.74	.37	:.1,98	" : Congl. cl7.	
16-85	:	:	:	:	:	:	:	:	:	:	:	:	:	:	: see below.	
25-85	:	:	.01	:.1,42	:.015	.015	:.005	.001	:.001	.015	.015	.005	.49	.78	:.8,57	
26-85	:	:	.02	:.005	.001	:	:.005	:.005	:.035	:.001	:	.46	.98	:.29,14	:.001 "	
27-85	:	:	.1,63	:.015	.02	:.001	.001	:.015	.005	:.03	:	.53	.42	:.3,71	:.005 "	
28-85	:	:	.54	"	:	"	:.005	:.005	.025	:.005	:	.67	.26	:.2,90	:.001 Claim 6 GR	
29-85	:	:	.55	"	:.01	.015	.001	"	:.001	:.015	:	.64	.51	:.5,07	:.001 claim 5	
	:	:	:													
<u>I.C.P: Analyses: 27 elements.</u>																
Elements	AG	As	B	Be	Bi	Cd	Co	Cu	Li	Mo	Ni	Pb	V	Zn	:	
2-85	:.6	: 6	: 1	: 1	: 4	:	.5	: 7	: 6	: 29	: 1	: 1	: 9	:	.31	:.62 gran. cl6.
3-85	:.5	: 1	: 1	: 1	: 3	:	.5	: 5	: 6	: 27	: 1	: 1	: 6	:	.27	:.40 gran. cl. 7
4-85	:1.5	: 17	: 7	: .6	: 5	:	.2	: 34	: 63	: 1	: 1	: 56	: 11	:	.75	:.73 Cariboo.
5-85	:.3	: 14	: 14	: .8	: 2	:	.1	: 2	: 24	: 1	: 2	: 12	: 17	:	.16	:.25 Greisen them.
1-85	:.2	: 1	: 1	: 1	: 1	:	.6	: 2	: 3	: 19	: 1	: 1	: 13	:	.9	:.29 gran. cl6.
11-85	:.5	: 25	: 25	: .2	: 3	:	.6	: 17	: 71	: 1	: 2	: 64	: 15	:	.22	:.11 Culv. creek 2.
12-85	:2.5	: 1	: 1	: 1	: 13	:	.1	: 25	: 85	: 4	: 1	: 29	: 1	:	.87	:.35 Green r. out.
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	: crop.	
Note: in these I.C.P.analyses we are reporting the 14 most important minerals which are associated with our search for beryllium, only.																
The others like u,Th,Sr,Sb,P,Na,Mn,Mg,K,Fe,Ca,Al,of course are all shown in the geochemical report from the Laboratory.																
31-85	BE	Nb	Ti	W	Zr	Cu	Mo	Ni	Pb	V	Zn	SiO ₂	Sn			
	:.001	.01	.77	.01	:.01	:.005	:.005	:.025	:	:.02	:.02	:.01	:.59	.81	:.05: Cariboo.	
32-85	:.001	.01	.78	.01	:.01	:.001	"	:.01	:	:.02	:.02	:.01	:.64	.59	:.005 Cl.6 vedder.	

Summit claims. Assessment works 1984-85.

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b-Geochemical: Total analyses.

Samples	BE	Nb	Ti	W	Zr	Cu	Mo	Ni	Pb	V	Zn	SiO ₂	CaO	Sn	:	
Min-Eh																
7-85	:.001	.01	.08	:.015	.010	.005	.005	.005	.005	.001	.005	90.44	:.17	:.001	:hematite cl8	
8-85	: "	"	.94	:.01	.01	:.001	:.001	:.02	"	:.015	.001	64.54	:.5.02	"	: Greisen cl7	
9-85	: "	"	.15	:.015	.05	"	"	:.005	"	:.005	.005	86.44	:.41	"	: Gr+hema. Cl5	
10-85	: "	"	.81	:.010	.010	"	:.005	"	"	:.02	.01	62.87	:.11,72	"	: Gr+veinl. Cl6	
11-85	:	:	:	:	:	:	:	:	:	:	:	:	:	:	: see below	
12-85	:	:	:	:	:	:	:	:	:	:	:	:	:	:	"	
13-85	:	"	.02	:.010	"	:.005	"	"	"	:.005	"	64.28	:.19,34	.061	: Greenr. Cl5.	
14-85	:	"	.57	:.01	"	:.001	"	"	:.01	"	:.005	69.31	:.4,64	.001	: Granit. n. cl7	
15-85	:	"	.33	:.01	:.005	"	"	:.01	"	"	"	74.37	:.1,98	"	: Congl. cl7.	
16-85	:	:	:	:	:	:	:	:	:	:	:	:	:	:	: see below.	
25-85	:	"	.01	:.1,42	:.015	.015	:.005	.001	:.001	.015	.015	.005	49.78	:.8,57	.005	: (Cariboo)
26-85	:	"	.02	:.005	.001	"	:.005	:.005	:.035	.001	"	46.98	:.29,14	.001	"	
27-85	:	"	.1,63	:.015	.02	:.001	.001	:.015	.005	:.03	"	53.42	:.3,71	.005	"	
28-85	:	"	.54	"	"	"	:.005	:.005	:.025	.005	"	67.26	:.2,90	.001	: Claim 6	
29-85	:	"	.55	"	:.01	:.015	.001	"	:.001	:.015	"	64.51	:.5,07	.001	: claim 5	

I.C.P: Analyses: 27 elements:

Elements	AG	As	B	Be	Bi	Cd	Co	Cu	Li	Mo	Ni	Pb	V	Zn	:
2-85	:.6	6	:1	:1	:4	:.5	.7	:6	29	:1	:1	9	:31	.62	: gran. cl6.
3-85	:.5	1	:1	:1	:3	:.5	.5	:6	27	:1	:1	6	:27	.40	: gran. cl. 7
4-85	:1,5	:17	:7	:.6	.5	:.2	.34	:63	1	:1	:56	11	:75	.73	: Cariboo.
5-85	:.3	:14	:14	:.8	.2	:.1	.2	:24	1	:2	:12	17	:16	.25	: Greisen hem.
1-85	:.2	:1	:1	:1	:1	:.6	.2	:3	19	:1	:1	13	:9	.29	: gran. cl6.
11-85	:.5	:25	:25	:.2	.3	:.6	.17	:71	1	:2	:64	15	:22	.11	: Culv. creek 2
12-85	:2,5	1	:1	:1	:13	:.1	.25	:85	4	:1	:29	1	:87	.35	: Green r. out.
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	: crop.

Note: in these I.C.P.analyses we are reporting the 14 most important minerals which are associated with our search for beryllium, only.

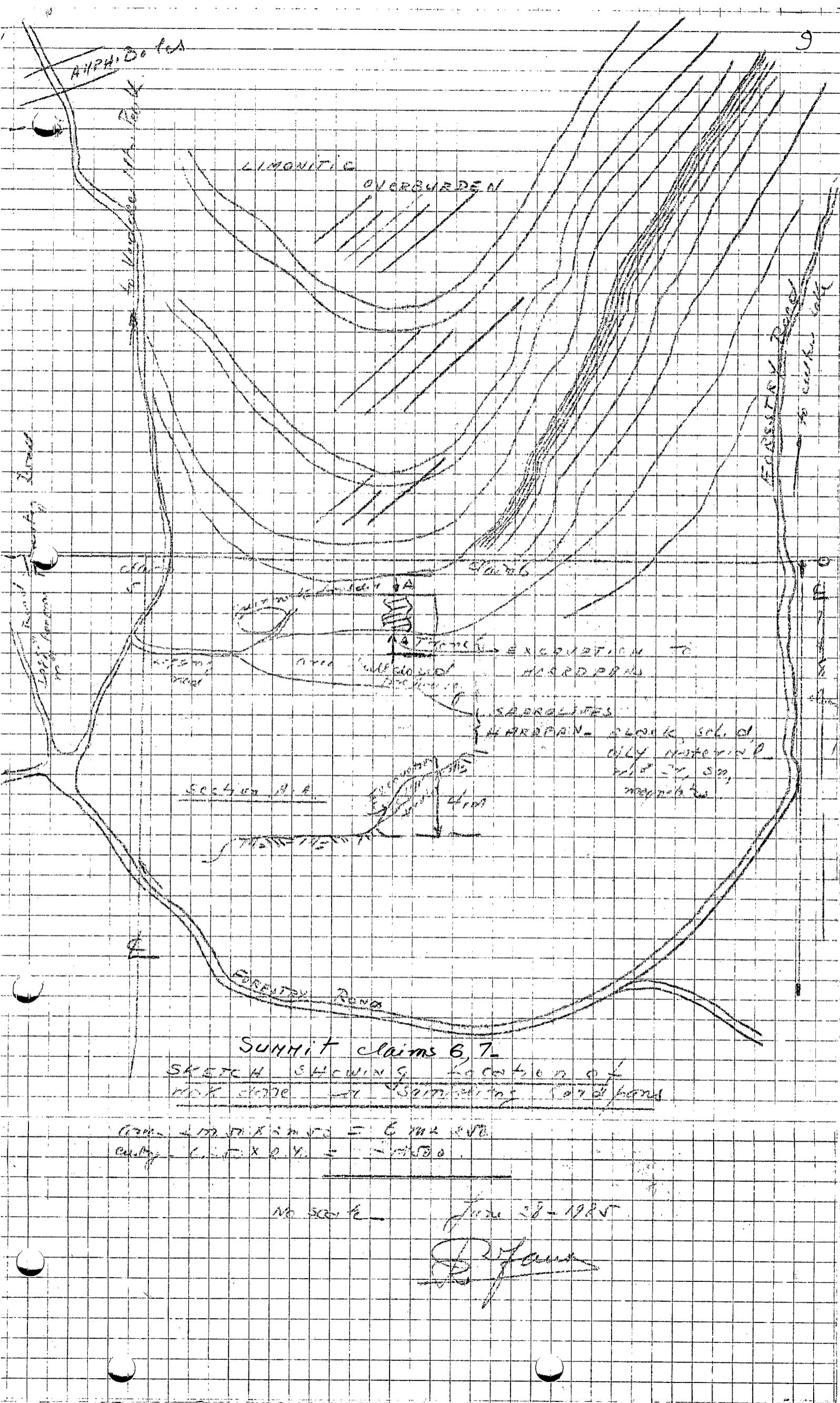
The others like u,Th,Sr,Sb,P,Na,Mn,Mg,K,Fe,Ca,Al,of course are all shown in the geochemical report from the Laboratory.

31-85	BE	Nb	Ti	W	Zr	Cu	Mo	Ni	Pb	V	Zn	SiO ₂	Sn		
	:.001	.01	.77	.01	:.01	:.005	:.005	:.025	:.02	:.02	.01	:.59	.81	.05	: Cariboo.
32-85	:.001	.01	.78	.01	:.01	:.001	"	:.01	:.02	:.02	.01	:.64	.59	.005	: Cl.6 vedder.

Summit claims. Assessment works 1984-1985.

GEOCHEMICAL ANALYSES. (continued)

Samples nos.	: Ag	: As	: B	: Be	: Bi	: Cd	: Co	: Cu	: Li	: Mo	: Pb	: V	: Zn	: Remarks.
Min-En	:	:	:	:	:	:	:	:	:	:	:	:	:	
no16-85	: .4	: 10	: 1	: .1	: 1	: 1	: 4	: 13	: 16	: 1	: 15	: 10:221	: cl.5.small creek on road.	DAMPER with very thin veins
17-85	: 2.3	: 1	: 15	: .1	: 9	: .1	: 19	: 31	: 25	: 1	: 1	: 68 83	: black schists.	
18-85	: 1.7	: 6	: 13	: .1	: 6	: .1	: 11	: 27	: 17	: 1	: 5	: 60: 59	: "	"
19-85	: .3	: 12	: 1	: .1	: 1	: .6	: 5	: 17	: 6	: 1	: 21	: 10: 28	: Vein outcrop. with fluorescences. Cl6	
20-85	: .3	: 9	: 1	: .2	: 1	: .1	: 4	: 13	: 1	: 1	: 12	: 8: 22	: "	"
21-85	: .2	: 16	: 1	: .2	: 1	: .1	: 4	: 12	: 12	: 1	: 20	: 8 : 20	: "	"
22-85	: 3.3	: 1	: 1	: .1	: ¹⁴	: .1	: 31	: 64	: 6	: 1	: 15	: 137: 76	: Hardpan	cl6
23-85	: 2.9	: 1	: 33	: .1	: 12	: .1	: 32	: 66	: 8	: 1	: 4	: 130: 76	: "	"
24-85	: .9	: ^{ad} 26	: .1	: 1	: .3	: 14	: 63	: 1	: 1	: 85	: 47: 78	: Gneiss.-		
30-85	: 1.2	: 6ppb	:	:	:	:	:	:	:	:	:	:	: Hardpan.	



10

Summit Claims 5,6,7,8. Assessment works 1984-1985.Total Cost Statement for 1984-1985, on the above claims on Vedder Mountain.

Items nos	Descriptions.	:	:
1	: Time on project. 791/2 hours x 12,00\$=.....	:	954,00.
2	: Mileage. 2000kms : 1,7=1176kms x 0,35=.....	:	411,60.
3	: Meals. 2 mealsx 5,00=.....	:	100,00.
4	: Costs of geochemical reports and assays from Min-En : Laboratory.....	:	345,00.
5	<u>: Miscellaneous expenses:</u>	:	:
	: 1-Washing samplew ,samples preparation for Lab.	36,00	
	: 2-Observations of samples for fluorescences with the	:	
	: Mineral lighs.....	72,30	
	: 3-Trips to Lab.70 miles x 0,35=.....	22,50	
	: 4-Tool-New Altimeter.Elden Exploration Vancouver.....	53,00	
	: 5-Claims records of assessment.....	<u>40,00</u>	
	: Total.....	<u>223,80</u>	223,80
	: Report-Stationary-Time,,maps ,sketches etc....	:	369,40
	 : Grand total.....	 :	2403,80

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project 9 Date of report April 19, 1985.

File No. 5-113 Date samples received April 17, 1985.

Samples submitted by: Mr. Trifaux

Company: Trifco Minerals Ltd.

Report on: 12 rocks assay prep Geochem samples

Assay samples

Copies sent to:

1. Trifco Minerals Ltd., Coquitlam, B.C.
2.
3.

Samples: Sieved to mesh Ground to mesh -100

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: 27 ICP Analysis. Major 26 analysis.

Remarks:

COMPANY: TRIFCO MINERALS LTD.
PROJECT NO: 9
ATTENTION: MR. TRIFAUX
(VALUES IN ppm)

MIN-EN LARS TCP REPORT

15TH ST., NORTH VANCOUVER, B.C. V7M
(604)980-5814 OR (604)988-4524

(ACT:6E027) PAGE 1 OF 2
FILE NO: 5-113
DATE: APRIL 19, 1985
* TYPE ROCK GEOCHEM *

19

MIN-1-85 MIN-2-85 MIN-3-85 MIN-4-85 MIN-5-85 MIN-11-8 MIN-12-8

COMPANY: TRIFCO MINERALS LTD.
PROJECT NO: 9
ATTENTION: MR. TRIFAU
(VALUES IN %)

MIN-EN LABS ICP REPORT
5 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M
(604) 980-5814 OR (604) 988-4524

(ACT:LI37EL) PAGE 1 OF 2
FILE NO: 5-113
DATE: APRIL 19, 1985
* TYPE ROCK GEOCHEM *

20

MIN-7-85 MIN-8-85 MIN-9-85 MIN-10-85 MIN-13-85

AL203 1.51 11.97X 3.13 15.81X .49

BA .015 .015 .455 .015 .005

BE <.001 <.001 <.001 <.001 <.001

CAD .17 5.02 .41 11.72 19.34

CR203 .04 .05 .05 .02 .03

FE203 1.29 14.64 4.01 6.32 .68

K2O .20 .08 .74 .02X .02

MgO .73 3.13 .97 2.17 .64

MnO2 .05 1.40 .60 .17 .09

Na2O .04 1.17X .16 1.48X .04

Nb <.01 <.01 <.01 <.01 <.01

P2O5 .08 .24 .08 .21 .03

RB <.01 .02 .02 .02 .03

SiO2 90.44 64.52 86.44 62.87X 64.28 ▶

Sn <.001 <.001 <.001 .005 <.001

SR <.01 <.01 <.01 <.01 .06

TiO2 .08 .94 .15 .81X .02

W .015 .010 .015 .010 .010

Zr <.001 .010 .005 .010 <.001

CD .005 .005 .005 .005 .005

CU .005 <.001 .025 <.001 .005

MO .005 <.001 <.001 .005 .005

NI .005 .020 .005 .005 .005

PB .005 .005 .005 .005 .005

V <.001 .015 .005 .020 .005

ZN .005 <.001 .005 .010 .010

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

21

ANALYTICAL REPORT

Project 9 Date of report April 24, 1985.

File No. 5-123 Date samples received April 22/85.

Samples submitted by: Mr. Trifaux

Company: Trifco Minerals Ltd.

Report on: 8 rocks assay prep Geochem samples

Assay samples

Copies sent to:

1. Trifco Minerals Ltd., Coquitlam, B.C.
2.
3.

Samples: Sieved to mesh Ground to mesh -100

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: Major 26 ICP. ICP 27.

Remarks:

COMPANY: TRIFCO MINERALS LTD.

PROJECT NO: 9

ATTENTION: MR. TRIFAUX

MIN-EN LABS ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7C 2
(604)980-5814 OR (604)988-4524

(ACT:GEO27) PAGE 1 OF 1

FILE NO: 5-123R

222

DATE: APRIL 24, 1985

* TYPE ROCK GEOCHEM *

(VALUES IN PPM)

MIN-16-B MIN-17-B MIN-18-B MIN-19-B MIN-20-B MIN-21-B

AB	.4	2.3	1.7	.3	.3	.2
AL	4620	27350	25300	5590	4580	4110
AS	10	<1	6	12	9	16
B	<1	15	13	<1	<1	<1
BA	2277	100	110	5882	5346	5613

BE	<.1	<.1	<.1	<.1	<.2	<.2
BI	1	9	6	1	<1	1
CA	1340	6060	6600	1110	2690	1340
CD	<.1	.1	<.1	.6	<.1	<.1
CO	4	19	11	5	4	4

CU	13	31	27	17	13	12
FE	15450	63020	48780	17360	14060	12500
K	950	(1570)	1060	(870)	720	860
LI	(16)	(25)	17	6	1	12
MG	3190	16860	13810	4250	3410	2920

MN	533	690	549	621	479	442
MO	<1	<1	<1	1	1	1
NA	<10	(280)	110	<10	<10	<10
NI	12	49	26	17	15	17
P	90	490	300	100	80	70

PB	15	1	5	21	12	20
SB	<1	<1	<1	<1	<1	<1
SR	34	30	43	69	82	69
TH	<1	<1	<1	<1	<1	<1
U	1	<1	2	3	3	<1

V	10.2	68.5	60.0	10.1	8.4	8.0
ZN	21	83	59	28	22	20

COMPANY: TRIFCO MINERALS LTD.
PROJECT NO: 9
ATTENTION: MR. TRIFAUX
(VALUES IN %)

MIN-EN LABS ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1V2
(604)980-5814 OR (604)988-4524

(ACT:L137EL) PAGE 1 OF 1
FILE NO: 5-123R
DATE: APRIL 24, 1985
* TYPE ROCK GEOCHEM *

MIN-14-B MIN-15-B

	MIN-14-B	MIN-15-B
AL2O3	16.52	7.53
BA	.055	.040
BE	<.001	<.001
CAO	4.64	1.98

CR2O3	<.01	.03
FE2O3	3.94	3.08
K2O	.95	1.06
MgO	1.58	1.30

MnO2	.29	.13
Na2O	3.49	1.42
NB	<.01	<.01
P2O5	.11	.09

Rb	<.01	<.01
SiO2	69.31	74.37
Sn	<.001	<.001

SR	.02	.02
TiO2	.57	.33
W	.010	.010
Zr	.010	.005

CO	.005	.005
CU	<.001	<.001

MO	.005	.005
Ni	.005	.010
PB	.010	.010

V	.005	.005
ZN	.005	.005

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project 9 Date of report April 26, 1985.

File No. 5-130 Date samples received April 24, 1985.

Samples submitted by: Mr. Trifaux

Company: Trifco Minerals Ltd.

Report on: 3 rocks assay prep Geochem samples

Assay samples

Copies sent to:

1. Trifco Minerals Ltd., Coquitlam, B.C.
2.
3.

Samples: Sieved to mesh Ground to mesh -100

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: 27 element ICP.

Remarks:

COMPANY: TRIFCO MINERALS LTD.
PROJECT NO: 9
ATTENTION: MR. TRIFAUX
(VALUES IN PPM)

MIN-EN LABS ICP REPORT
3 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M
(604)980-5814 OR (604)988-4524

(ACT:BE027) PAGE 1 OF 1 25
FILE NO: 5-130
DATE: APRIL 25, 1985
* TYPE ROCK GEOCHEM *

22/85 HA 23/85 HA 24/85 GN
RDPAN RDPAN EISS

AG	3.3	2.9	.9
AL	39820	41060	24970
AS	<1	<1	9
B	33	26	9
BA	239	255	202

BE	<.1	<.1	<.1
BI	14	12	1
CA	24830	23320	9480
CD	<.1	<.1	.3
CO	31	32	14

CU	64	66	63
FE	94060	91910	45500
K	1850	1930	2810
LI	6	8	<1
MG	20800	22230	9620

MN	969	963	981
MO	<1	<1	<1
NA	390	400	560
NI	100	114	33
P	580	510	1250

PB	15	4	85
S8	42	<1	229
SR	49	54	34
TH	<1	<1	<1
U	<1	<1	<1

V	137.7	130.7	47.4
ZN	76	76	78

Harpan cl 6,

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project 10-Vedo Date of report May 21, 1985.

File No. 5-155 Date samples received May 15, 1985.

Samples submitted by:

Company: R.Trifaux

Report on: 2 rocks assay prep Geochem samples

Assay samples

Copies sent to:

1. R.Trifaux, Coquitlam, B.C.
- 2.
- 3.

Samples: Sieved to mesh Ground to mesh -100

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: 26 major ICP. Geochem Ag-nitric, perchloric digestion.A.A.,
Au-aqua regia.A.A.

Remarks:

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

27

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: R. TRIFAUX

FILE: 5-155

PROJECT: 10-VEDO

DATE: MAY 17/85.

ATTENTION: MR. TRIFAUX

TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	MAG %
---------------	-------

MIN-EN 30/85 ✓	15.02
----------------	-------

Certified by

MIN-EN LABORATORIES LTD.

COMPANY: R. TRIFAUXT
PROJECT NO: 10-VEDO
ATTENTION: R. TRIFAUXT
(VALUES IN %)

MIN-EN LABS ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:L126) PAGE 1 OF 1 28
FILE NO: 5-155
DATE: MAY 21, 1985
* TYPE ROCK GEOCHEM *

MIN-EN 3 1/85 MIN-EN 3 2/85

AL203	16.59	17.19
BA	.150	.035
BE	<.001	<.001
CAO	5.43	1.09
CO	.005	.005

CR203	.04	.03
CU	.005	<.001
FE203	6.61	7.79
K20	1.43	1.09
MgO	6.89	3.68

MnO2	.15	.18
Mo	.005	.005
Na2O	4.56	4.67
Nb	<.01	<.01
Ni	.025	.010

P205	.31	.15
Pb	.020	.020
Rb	.03	<.01
SiO2	59.81	64.59
Sn	.005	.005

SR	.13	<.01
TiO2	.77	.78
V	.020	.020
W	.010	.010
Zn	.010	.010
Zr	.015	.010

29

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: R. TRIFAU

FILE: 5-155

PROJECT: 10-VEDO

DATE: MAY 21, 1985.

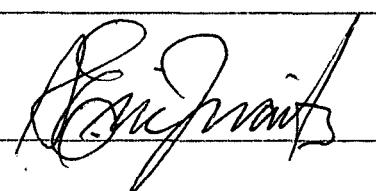
ATTENTION: R. TRIFAU

TYPE: ROCK GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 1 samples submitted.

SAMPLE NUMBER	AG PPM	AU-FIRE PPB
MIN-EN 31/85	1.2	6

Certified by



MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project 10 Date of report May 7, 1985.

File No. 5-142 Date samples received May 3/85.

Samples submitted by: Mr. Trifaux

Company: Trifco Minerals Ltd.

Report on: 5 rocks Geochem samples

Assay samples

Copies sent to:

1. Trifco Minerals Ltd., Coquitlam, B.C.
2.
3.

Samples: Sieved to mesh Ground to mesh

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: Major ICP Analysis.

Remarks:

COMPANY: TRIFCO MINES

PROJECT No:

ATTENTION: MR. TRIFAUX

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:LI26) PAGE 1 OF 3

FILE No: 5-142

#ROCK GEOCHEM* DATE: MAY 7, 1985

(VALUES IN %)	AL203	BA	BE	CAD	CO	CR203	CU	FE203	K2O	MgO	MnO2	NU
MINEN25(NON-MAG)	16.78	.020	<.001	8.57	.005	<.01	.005	11.10	1.01	7.15	.23	<.001
MINEN26	.43	.005	<.001	29.14	<.001	<.01	.005	.71	.02	.68	.13	.005
MINEN27	20.01	.120	<.001	3.71	.005	.02	<.001	8.14	2.59	6.80	.21	<.001
MINEN28	15.97	.090	<.001	2.90	.005	<.01	<.001	3.45	3.43	1.36	.09	.005
MINEN29	16.47	.015	<.001	5.07	.005	<.01	.015	5.15	.34	2.71	.16	<.001

COMPANY: TRIFCO MINES

PROJECT No:

ATTENTION: MR. TRIFAUX

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:LI26) PAGE 2 OF 3

FILE No: 5-142

#ROCK GEOCHEM* DATE: MAY 7, 1985

(VALUES IN %)	NA2O	NB	NI	P205	PB	RB	SiO2	SN	SR	TiO2	V	W
MINEN25(NON-MAG)	3.48	<.01	.0010	.37	.015	<.01	49.78	.005	.05	1.42	.015	.015
MINEN26	.10	<.01	.005	<.01	.035	<.01	46.98	<.001	.10	.02	<.001	.005
MINEN27	3.95	<.01	.015	.37	.005	.05	53.42	.005	<.01	1.63	.030	.015
MINEN28	3.61	<.01	.005	.14	.025	.03	67.26	<.001	.04	.54	.005	.015
MINEN29	4.02	<.01	.005	.09	<.001	.02	64.51	<.001	<.01	.55	.015	.015

COMPANY: TRIFCO MINES

PROJECT No:

ATTENTION: MR. TRIFAUX

MIN-EN LABS ICP REPORT
705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:LI26) PAGE 3 OF 3

FILE No: 5-142

#ROCK GEOCHEM* DATE: MAY 7, 1985

(VALUES IN %)	ZN	ZR	MAG%	
MINEN25(NON-MAG)	.005	.015	18.97	Calcareous
MINEN26	.005	<.001	0	Calc-silicate with TA
MINEN27	.005	.020	0	calcareous silicic acid
MINEN28	.005	.020	0	fine grained calc-silicate zones from metasediment
MINEN29	.005	.010	0	Calcareous from bedrock

STATEMENT OF QUALIFICATIONS

EXPLORATION & MINING.

Education: Belgium: Mining School of Chatelineau. 2 years. 1 diploma.

Mining school and surveyor(mining) Tamines. 1 year-1 diploma.

University of Charleroi, Belgium. 1 Certificate. Mining, Sciences, Mathematics. The diplomas and certificate were sent to the Department of Mines in 1977 - 1978.

I passed the test of Identification of rocks and minerals with a certified Geologist of B.C. (B.C. Government geologist) in 1978. with success.

I have an extensive experience in prospecting and mining with the following Companies in Zaire and Ruanda-Burundi:

1-La Compagnie Minere des Grands Lacs Africains. Brussels. begium.

2-La Compagnie Miniere Mirudi, Ruanda-Burundi. (Brussels, Belgium).

3-Explorations Miniere en Afrique Centrale. H. Henrion, Busoro, Ruanda.

4-De Borchgrace Tin Company, Kigali, Ruanda.

I prospected the granitic massifs of Ruanda-Burundi successfully for tin, columbite and tantalite, gold.

I described my methods of exploring in the 1978 report (Cariboo) related to the distances of lines and pits in prospecting(flying) and the systematic works done. I did the topographical maps, locations of discoveries new deposits in ancient mines in terraces, describe the nature of rocks formations and researched for extensions of deposits.

I opened several mines in gold, cassiterite, wolframite, beryllium and was very successful in improving the methods of exploitation.

In 1959, I started prospecting in British Columbia, for gold in the Cariboo. I evaluated a placer flat in the Quesnel area, on the Cottonwood. for a Company. Today, I explore in the Cariboo, New Westminster mining divisions.

I do my geochemical samplings according to the recommendations of Geologists and Geochemists and orient and organize my works according to the results of Geochem surveys(analyzes from Laboratories).

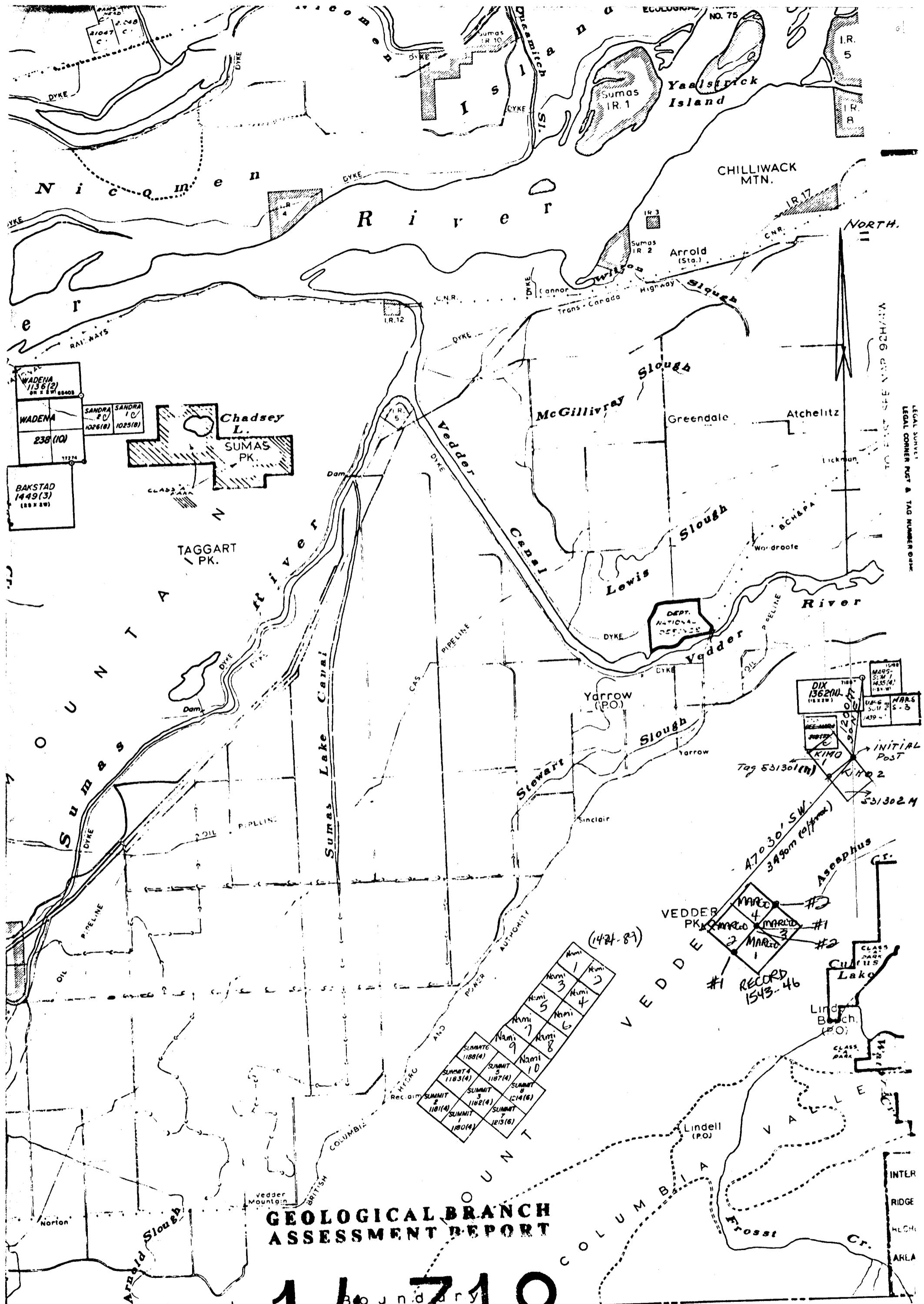
I keep informed in literatures such as the E/J mining Journal, the CIM magazine, from the literatures of the Department of Mines in Victoria, books from the geological Survey of Canada, from newspapers well versed in mining and Costs etc...

I consult professionals and use the exploration equipment available in British Columbia, to prospectors: topolite, Geiger counter, altimeter, aerials maps with stereoscope, mineral light for fluorescence, I pan the gravels for minerals and the hardpans when I discover them.

I do my staking, and sketch mappings myself my assessment works reports.

When I will need a geophysical survey it will be done by a professional, for any evaluation of reserves it will be done by geologists.

In tin mining, I worked in open-pit mines, in placers, in quartz veins underground and all the surveys and drawing of plans were done by myself. All the hydraulic works for placer mining were executed by myself with heavy equipment driven by the natives. The plottings were done by me.



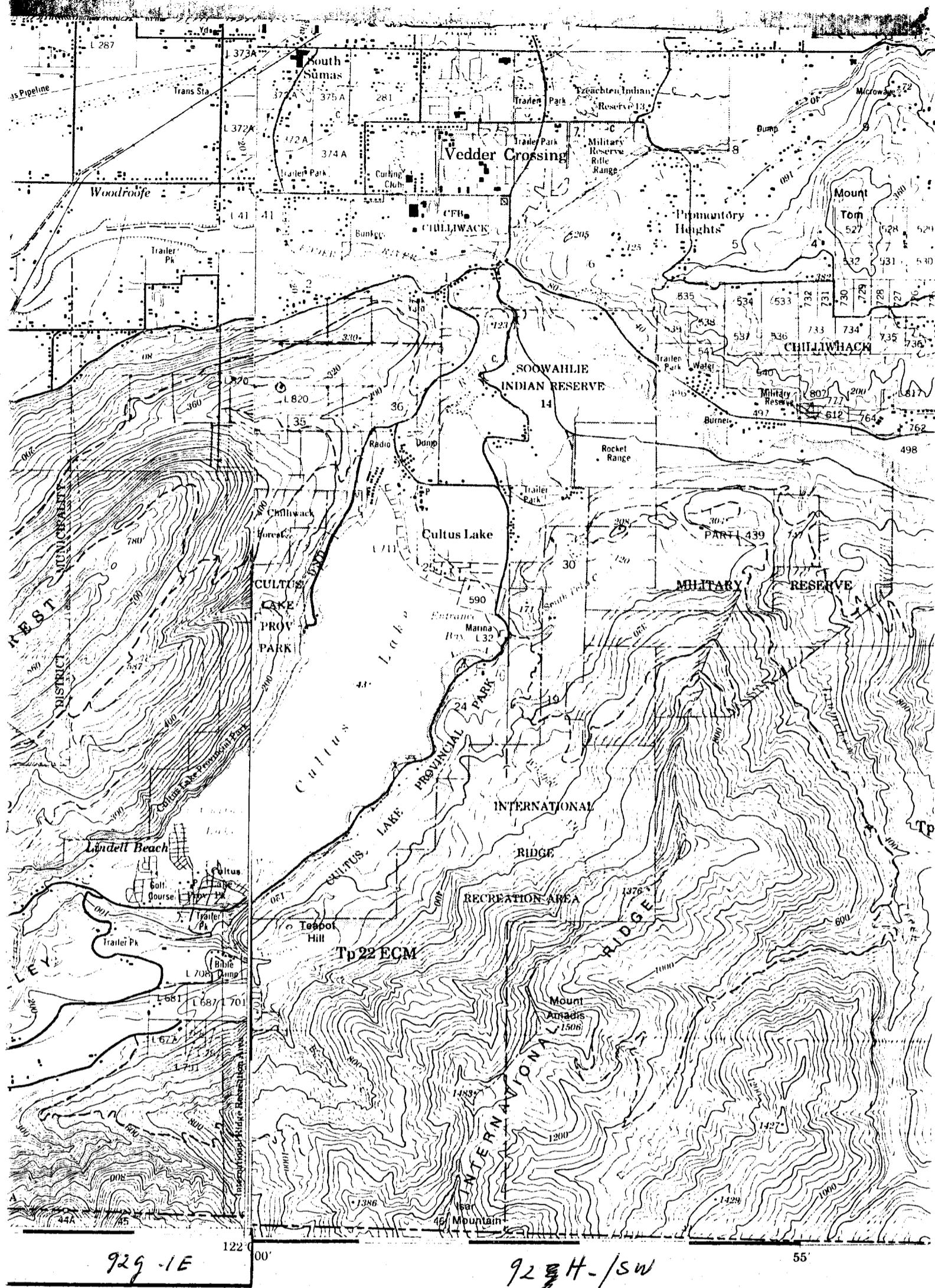
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,318

DEPARTMENT OF MINES AND PETROLEUM RESOURCES
VICTORIA B.C.

This map is prepared to serve as a guide to the positions of located mineral claims and Placer Mining Leases only. Unlocated

92G/1E



Etablie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RÉSOURCES SURVEYS AND MAPPING BRANCH, à l'aide de photographies aériennes prises en 1976. Vérification effectuée en 1978. Publié en 1980.

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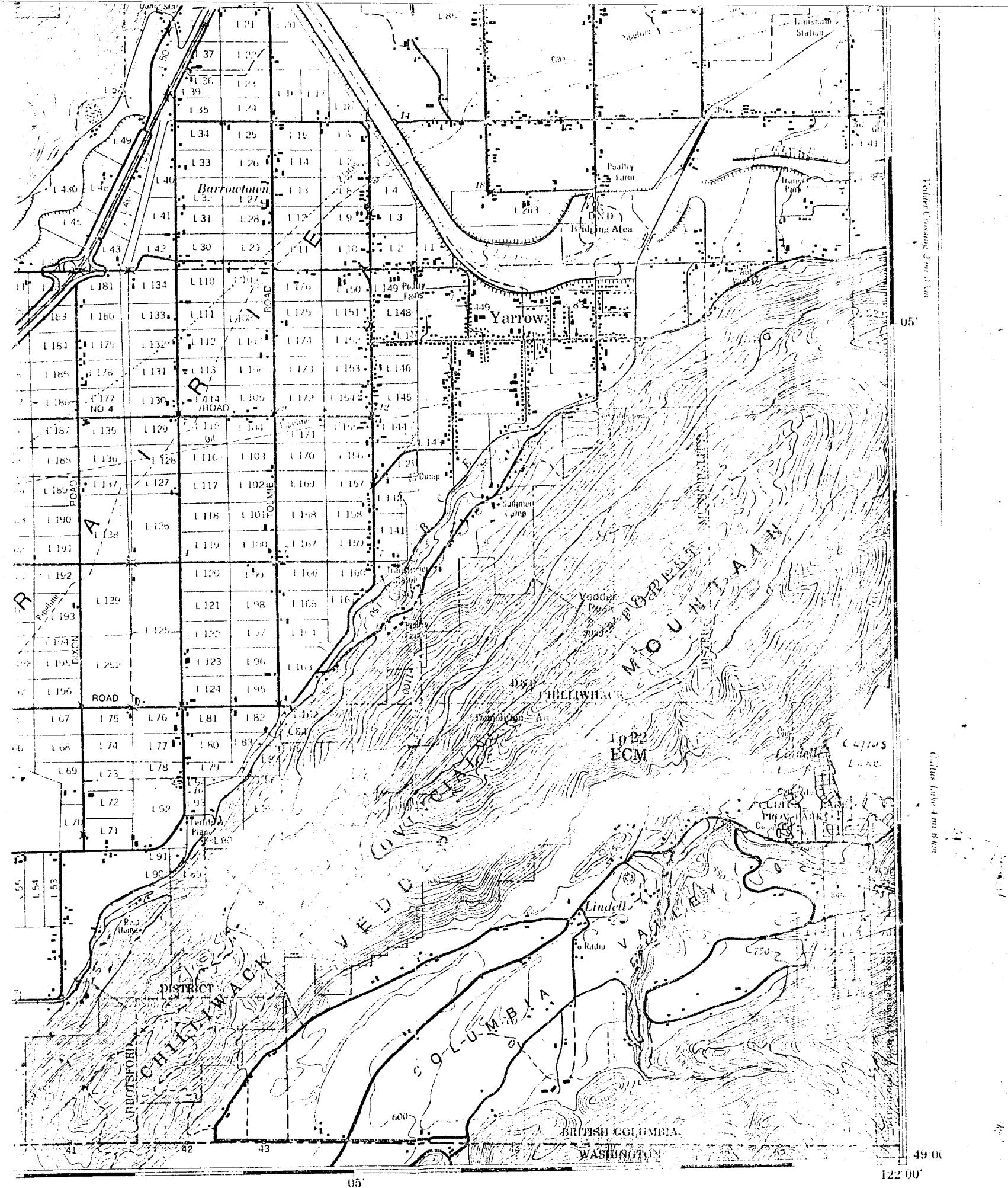
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Ministère de l'Énergie, des Mines et des Ressources.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,318

M.J.P. no 2
M.J.P. - 92H / SW }
in part Chilliwack Lake }
1/2 face - 92G - 1E .



Map no 3 - Topography
Mission 92511

LINE DES COURBES 50 PIEDS
au dessus du niveau moyen de la mer
et géodésique nord-américaine 1927
en transverse de Mercator

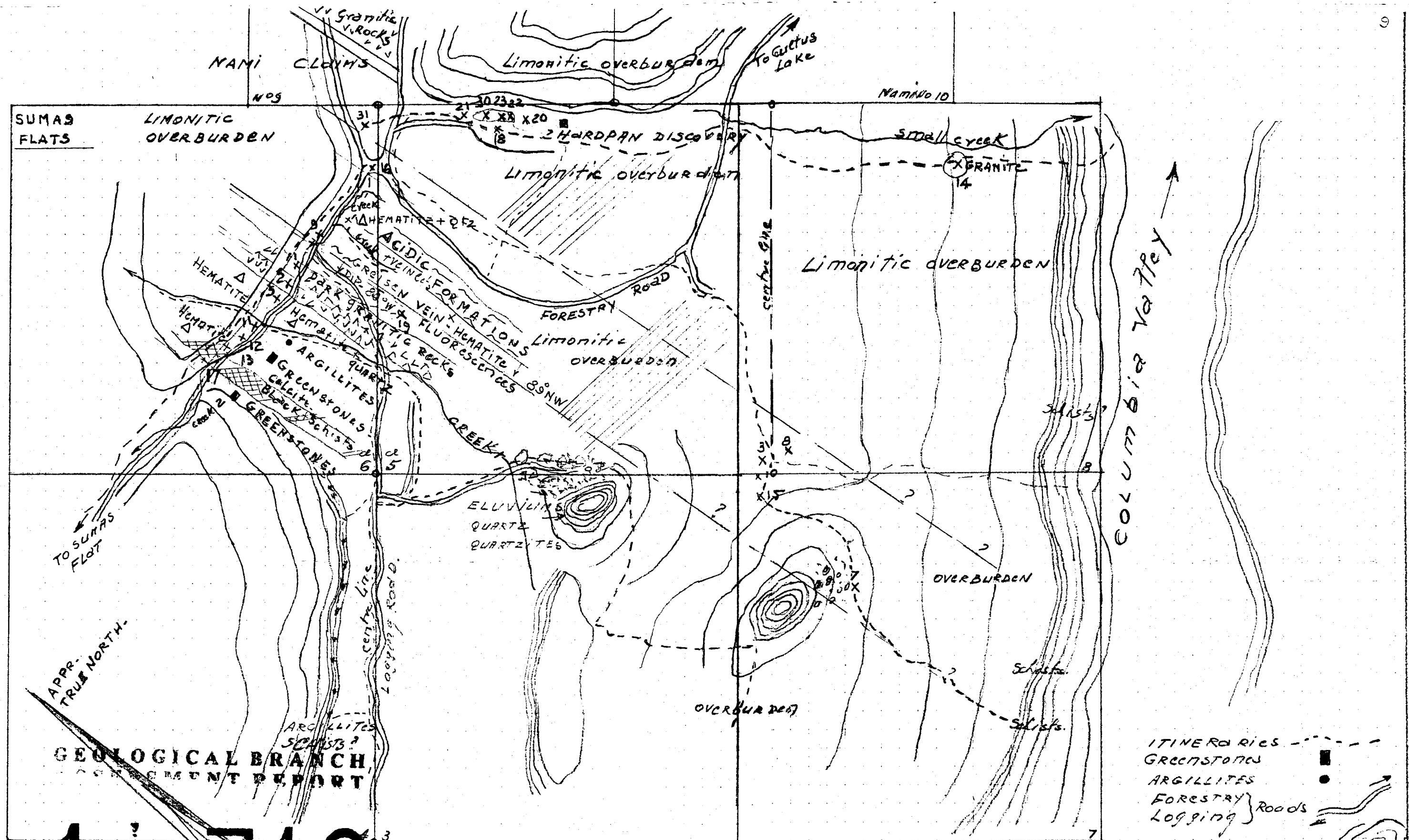
Établie par la DIRECTION DES ÉLÈVES ET DE LA GEOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES TRAVAUX PUBLIQUES. Mise à jour
à l'aide de photographies aériennes prises en 1932 et 1934. Édition des sols en 1973. Peut également à jour en 1973. Résolution moyenne : 1 km. Échelle 1:100 000.
GEOLOGICAL SURVEY OF THE UNITED STATES.

Ces factures sont envoyées au Bureau des États-Unis du ministère de l'Énergie, des Mines et des Ressources ou chez le vendeur le plus près.

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**GEORGE T. COAL BANK
REGIMENT REPORT**

14,318



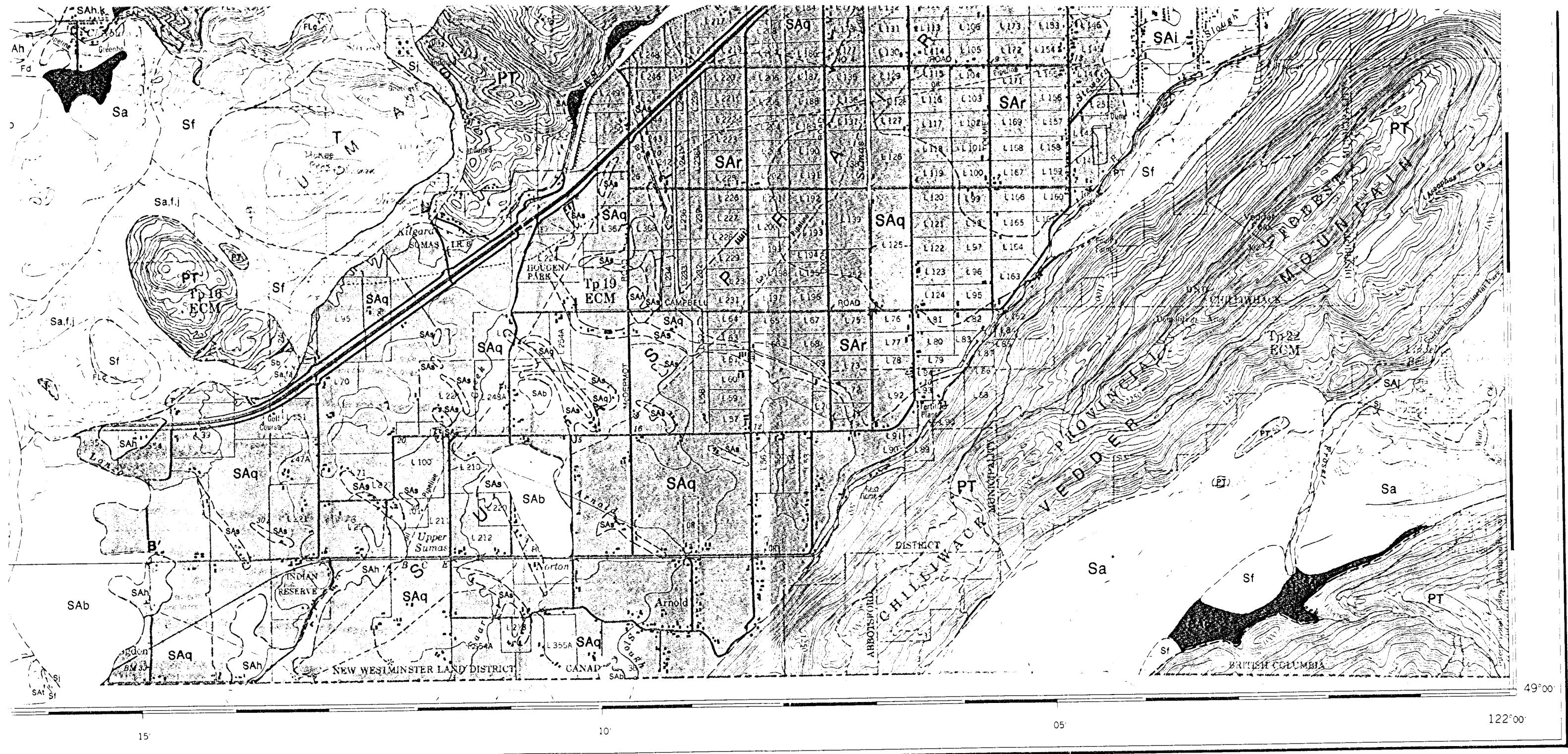
GRANITIC ROCKS.
 LIMONITIC OVERBURDEN.
 HARDPAN.
 ELUVIUMS.
 BLACK SCHISTS.
 ACIDIC ROCKS+veinlets
 GREISENS WITH veins



SCALE - 2cms = 100m

JUNE 29-1985.
by R. TRIFAU

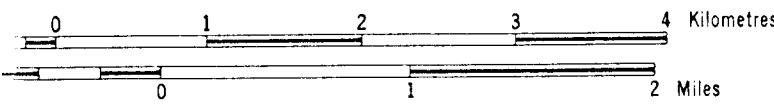
Map note.
Local geology
claims 5, 6, 7, 8



Printed by the Surveys and Mapping Branch, 1980

MAP 1485A
SURFICIAL GEOLOGY
MISSION
BRITISH COLUMBIA

Scale 1:50,000



Universal Transverse Mercator Projection
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Geological Survey of Canada
Geological Branch
Surface Geology Report

14,318

92G/6	92G/7	92G/8	92H/5
92G/3	92G/2	92G/1	92H/4
1486A	1484A	1485A	1487A
92B/14			

U.S.A.

Mo
Ag
Zn

1964

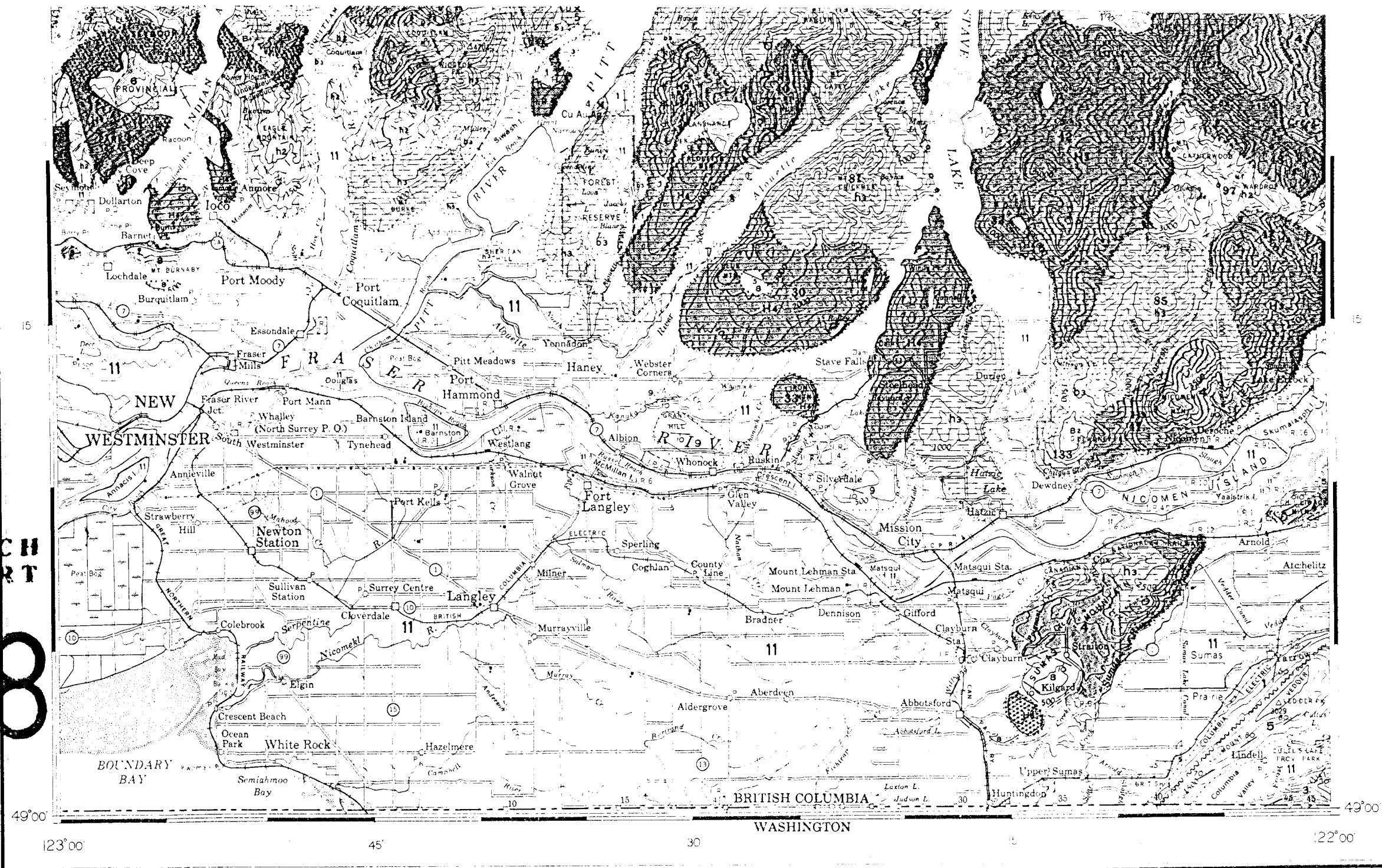
Route No. 7

**GEOLOGICAL BRANCH
GEOLOGIC SURVEY REPORT**

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959.
14,318

usually.
at the

usually.
at the



PUBLISHED, 1965
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DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA

MAP 1151A

1. TWIN ISLAND Group. Hornblende, granulite, amphibolite, gneiss GEOLOGY
 2. FIRE LAKE Group. Greenstone, slate, chloritic schist, granulite, andesite, minor limestone. PITT LAKE
 (Vancouver, East Half)
 3. CELTUS LAKE Formation. Shaly argillite, shale, shaly limestone and silicified argillite. BRITISH COLUMBIA
 11. Shaly limestone outcrop
 Alluvial Marine & Glacial Deposits Scale 1:253,440
 Miles 4 0 4

Map no 6

PITT LAKE

(Vancouver, East Half)

BRITISH COLUMBIA

Scale 1:253,440

1 inch to 4 miles

Kilometres 6 0 6 12 18 Kilometres

PLEISTOCENE

SUMAS DRIFT

Sa,e,i
Recessional glaciofluvial deposits: Sa, recessional channel and floodplain deposits laid down by proglacial streams; gravel and sand up to 40 m thick, normal range of thickness 5-25 m; Se, proglacial deltaic gravel and sand up to 10 m thick; Si, similar to Sa except that it is pitted outwash

Sb,c Sd

Recessional ice-contact deposits: Sb, ice-contact gravel and sand containing till lenses and clasts of Fort Langley glaciomarine sediments (FLc), 2 to 5 m thick, overlying FLc; Sc, ice-contact gravel and sand containing till lenses and clasts of Fort Langley glaciomarine sediments (FLc), 2 to 5 m thick, overlying FLb,e; Sd, ice-contact gravel and sand containing till lenses and clasts of Fort Langley glaciomarine sediments (FLc), 5 to 25 m thick, in the form of kames

Sh

Glaciolacustrine deposits: Sh, silt, clayey silt, silty clay, and sand, minor gravel, 5 to 35 m thick

Sf,g

Lodgment and minor flow till: Sf, sandy till and substratified drift, 2 to 10 m thick; Sg, sandy till and substratified drift 0.5 to 2 m thick, in most places overlying Fort Langley glaciomarine sediments (FLc)

Sj

Advance glaciofluvial deposits: Sj, gravel and sand up to 40 m thick, proglacial channel fill, floodplain, and deltaic sediments probably all included here

FORT LANGLEY FORMATION

Glaciomarine deposits, marine sediments, and minor till; FLa, lodgment till and flow till with sandy loam matrix; may contain clasts of and interbedded with FLc and FLd; FLc, glaciomarine stony silt to loamy clay, 8 to 100 m thick; FLd, silty clay to sandy loam up to 30 m thick, generally intimately intermixed with FLc and shown as a separate unit only where it occurs in mappable exposures

FLb,e

Glacioluvial sediments: FLb, channel fill, floodplain, and ice-contact gravel and sand, in places containing clasts of till and glaciomarine sediments, 5 to 20 m thick, interbedded with FLa,c,d; FLe, proglacial deltaic gravel and sand, up to 60 m thick, in places interbedded with FLa,c,d

VASHON DRIFT

Till and glacioluvial deposits: Va, lodgment till with sandy loam matrix, up to 10 m thick, overlain in many places by gravelly ablation till up to 3 m thick. Vashon Till exposed in the northwest part of the map area is drumlinized. Vb, glacioluvial sandy gravel and gravelly sand, mainly proglacial advance deltaic deposits, up to 25 m thick

UNDIVIDED PRE-VASHON DRIFT

UPV

Till, glacioluvial, glaciolacustrine, fluvial, and organic sediments

TERTIARY

T

Tertiary bedrock, basalt, sandstone, siltstone, shale, and conglomerate, mantled in 90 to 95 per cent of the area by 1 to 5 m of glacial drift (S and V), colluvium (see note SAm,p) and eolian deposits (see note SAT)

PRE-TERTIARY

PT

Mesozoic and Upper Paleozoic bedrock; includes sedimentary, volcanic, granitic, and metamorphic rocks, mantled in 90 per cent of the area by deposits, 1 to 5 m thick, of glacial (S and V), colluvial (SAm,p), and eolian (SAT) sediments

* Unit used only in cross-section

NOTES

- Where it was not feasible to separate lithologic units (units intimately intermixed or occurring in near vertical exposures) multiple units have been used, eg., Sa,f,j and FLa,b,c,d
- Mixed units consisting of more than one stratigraphic unit are shown as multiple units, eg. - FLc and Sg north of Hatzic Lake
- None of the Pre-Vashon lithostratigraphic units shown in the table of Quaternary Stratigraphy are exposed at the surface in the Mission map area; however, drillhole data indicate Pre-Vashon formations are probably widespread at depth
- The boundaries between Sumas Drift and Vashon Drift in the northwest part of the map area are placed to separate drumlinized till (Vashon) from nondrumlinized drift (Sumas). The upper limit on the Sumas Drift is not known
- All the steep slopes are subject to landslides; Fraser and Sumas valleys are subject to flooding

Geological boundary (mainly gradational).....

Trend of drumlinoid feature, (direction of ice known).....

Geology by J.E. Almstrom 1958-55, 1974-76

GEOLOGICAL BRANCH ASSESSMENT REPORT

Additional information (especially drillhole logs) from E.C. Halstead 1954-76 and Province of British Columbia Soils Survey 1956-65

Geological cartography by H. Kovachic, Geological Survey of Canada

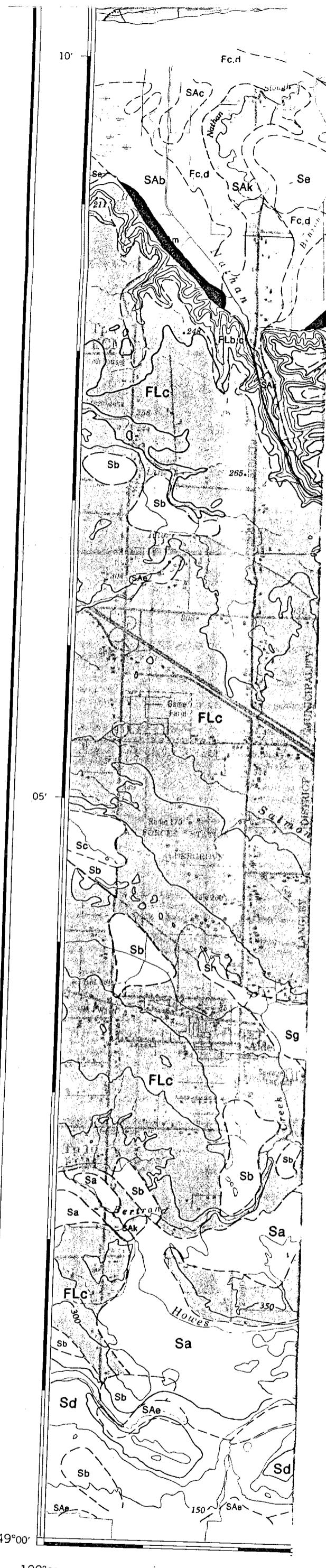
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base-map at the same scale published by Surveys and Mapping Branch in 1976

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa

Approximate magnetic declination 1978, 22°17' East decreasing 4.3' annually

Elevation in feet above mean sea level



Copies of this map may be obtained from the Geological Survey of Canada:
601 Booth Street, Ottawa, Ontario K1A 0E8
3303-33rd Street N.W., Calgary, Alberta T2L 2A7
100 West Pender Street, Vancouver, B.C. V6B 1R8

Map no 7
Legend of Pitt
Felt Geology
Map 1151A